



**URLs on ENVIRONMENT**

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## **CLIMATE CHANGE**

### **Climate Change: Understanding the Degree of the Problem.**

Government Reform Committee Hearing, July 20, 2006

<http://reform.house.gov/GovReform/Hearings/EventSingle.aspx?EventID=46863>

U.S. government scientists testified before a U.S. congressional committee July 20, trying to dispel any remaining doubts that climate change -- and the human role in it -- is a real phenomenon documented by abundant scientific research.

House Government Reform Committee Chairman Tom Davis, a Republican from Virginia, urged the issue be discussed in a nonpartisan way.

### **Introduction to Climate Change.**

Written Statement by Dr Thomas R. Karl, Director, National Climatic Data Center, NOAA, U.S. Department of Commerce.

For An Oversight Hearing Before The Committee On Government Reform, U.S. House of Representatives, July 20, 2006

<http://reform.house.gov/UploadedFiles/NOAA%20-%20Karl%20Testimony.pdf>

“The National Climatic Data Center is the world’s largest archive of weather and climate data, which includes data critical to understanding climate variability and change, and also acts as the Nation's Scorekeeper regarding the trends and anomalies of weather and climate... I will provide an overview of the current understanding of the atmosphere in terms of: the role that greenhouse gases play in the atmosphere; evidence for how greenhouse gases are already influencing the climate in both general and in specific ways; an introduction to the use of global climate models, and some of the evidence that has led a number of assessments, including the IPCC, the National Research Council , and the Climate Change Science Program Synthesis and Assessment Report 1.1, to link the rise in temperature over the past several decades to increases in greenhouse gases and related changes climate.”

## **Our Changing Climate: Assessing the Risks to California.**

A Summary Report from the California Climate Change Center, August 2006

<http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF>

This summary report of 17 scientific studies examines the potential impacts of climate change on the state of California. It warns that as the effects of global warming continue, California's 1,100 miles of coastline — a major attraction for tourism, recreation and other important economic activities — will face increased threats of rising sea levels, aggravating impacts of coastal storms and runoff from upstream flooding.

## **AGRICULTURE**

### **Agriculture-Based Renewable Energy Production.**

Randy Schnepf, Congressional Research Service, May 18, 2006

<http://www.nationalaglawcenter.org/assets/crs/RL32712.pdf>

Since the late 1970s, U.S. policy makers at both the federal and state levels have enacted a variety of incentives, regulations, and programs to encourage the production and use of agriculture-based renewable energy.

Motivations cited for these legislative initiatives include energy security concerns, reduction in greenhouse gas emissions, and raising domestic demand for U.S.-produced farm products. Agricultural households and rural communities have responded to these government incentives and have expanded their production of renewable energy, primarily in the form of biofuels and wind power, every year since 1996.

### **Agricultural Resources and Environmental Indicators.**

U.S. Department of Agriculture, Economic Research Service, July 2006

<http://www.ers.usda.gov/publications/arei/eib16/eib16.pdf>

This 2006 edition of Agricultural Resources and Environmental Indicators (AREI) examines U.S. farmers' production and conservation practices, the resources they use, and the conservation programs that help shape their choices. Among the findings of the analysts are the following:

- \* Land continues to shift between agriculture and other uses. Cropland has declined but losses do not threaten the nation's capacity to produce food and fiber.
- \* Competition for water is increasing, but the potential remains to increase agricultural water conservation through improved irrigation technology and management.
- \* Increasing concentration in animal production can have adverse impacts on air and water quality. A variety of voluntary and regulatory measures have been introduced at federal, state and local levels to mitigate these impacts.
- \* Public and private agricultural research and development (including advances in biotechnology) have helped drive rapid growth in agricultural productivity, but public R&D investment and productivity growth have slowed in recent years.
- \* Most farms are operated by a single operator or an operator and spouse, but most production comes from farms with larger and more complex management teams. Full-

time operators of larger and more complex enterprises are more likely than other operators to adopt recommended conservation practices.

- \* Soil erosion declined by more than a billion tons per year between 1982 and 1997, a quarter of which can be attributed to conservation compliance requirements.

- \* Use of commercial fertilizers and pesticides has been steady or declining in recent years, due to improvements in technology and other factors.

- \* Certified organic farmland more than doubled between 1992 and 2003, and USDA national standards for organic production and processing came into effect in 2002.

- \* The Farm Security and Rural Investment Act of 2002 sharply increased funding for conservation programs. Land retirement remains a key strategy, but much of the increase focused on programs for working cropland and grazing land.

## **FAUNA-FLORA**

### **Impacts of Ocean Acidification on Coral Reefs and Other Marine Calcifiers. A Guide for Future Research.**

Report of a workshop sponsored by NSF, NOAA and USGF, July 2006

[http://www.ucar.edu/communications/Final\\_acidification.pdf](http://www.ucar.edu/communications/Final_acidification.pdf)

Worldwide emissions of carbon dioxide from fossil fuel burning are dramatically altering ocean chemistry and threatening marine organisms, including corals, which secrete skeletal structures and support oceanic biodiversity. The report summarizes the known effects of increased atmospheric carbon dioxide on these organisms, known as marine calcifiers, and recommends future research for determining the extent of the impacts.

## **ENERGY**

### **Clean Energy Solutions.**

Electronic Journal, U.S. Department of State, July 2006

<http://usinfo.state.gov/journals/ites/0706/ijee/ijee0706.htm>

Projected dramatic increases in energy consumption in the coming decades, combined with a higher risk of climate change, require a massive global response based on technological innovation and the power of the marketplace. Experts and government officials describe the options, like renewable energy, novel vehicles, and low-carbon power generation, and discuss the best ways leading to a sustainable energy future.

### **Energy Conservation in the United States: Understanding its Role in Climate Policy.**

Metcalf, G.E., MIT Joint Program on the Science and Policy of Global, August 2006

[http://web.mit.edu/globalchange/www/MITJPSPGC\\_Rpt138.pdf](http://web.mit.edu/globalchange/www/MITJPSPGC_Rpt138.pdf)

Efforts to reduce carbon emissions significantly will require considerable improvements in energy intensity, the ratio of energy consumption to economic activity. Improvements in energy intensity over the past thirty years suggest great possibilities for energy conservation: current annual energy consumption avoided due to declines in energy intensity since 1970 substantially exceed current annual domestic energy supply.

**Clean Energy and Development: Towards an Investment Framework.**

Sustainable Energy and Economy Network, A World Bank paper, August 2006

[http://www.seen.org/PDFs/CEIF\\_aug06.pdf](http://www.seen.org/PDFs/CEIF_aug06.pdf)

This paper reports on progress in developing an Investment Framework for Clean Energy and Development intended to be a vehicle to accelerate investments to address developing country energy needs for growth and access for the poor.

**Making Sense of the “Coal Rush”: The Consequences of Expanding America’s Dependence on Coal.**

Travis Madsen, Rob Sargent, U.S. PIRG Education Fund, July 2006

<http://uspirg.org/reports/CoalRushUS.pdf>

Energy companies have proposed building a fleet of new coal-fired power plants across America. As of June 2006, power producers have approximately 150 new coal-fired plants on the drawing board, representing a \$137 billion investment and the capacity to supply power to 96 million homes.

Alternatives exist that would reduce or eliminate the need for new coal-fired power plants. By funneling investment instead into improvements in energy efficiency and expansion of renewable energy, the U.S. can avoid the potential impacts of the “coal rush” and improve the economy, the environment and public health

**RENEWABLE ENERGY**

**Renewable Energy: Increased Geothermal Development Will Depend on Overcoming Many Challenges.**

United States Government Accountability Office, May 24, 2006

<http://www.gao.gov/new.items/d06629.pdf>

Geothermal resources currently produce about 0.3 percent of America's total electricity and heating needs and supply heat and hot water to about 2,300 direct use businesses, such as district heating systems, fish farms, greenhouses, food-drying plants, spas, and resorts. The potential for additional direct use businesses is largely unknown because the lower temperature geothermal resources that they exploit are abundant and commercial applications are diverse. One study has identified at least 400 undeveloped wells and hot springs that have the potential for development.

This report describes: (1) The current extent of, and potential for, geothermal development; (2) Challenges faced by developers of geothermal resources; (3) Federal, state, and local government actions to address these challenges; and (4) How provisions of the Energy Policy Act of 2005 are likely to affect federal geothermal royalty disbursement and collections.

## **LEGISLATION**

### **Environmental Protection Issues in the 109th Congress.**

<http://cnie.org/NLE/CRSreports/06jun/RL33481.pdf>

Environmental protection concerns span a wide variety of issues, including clean air, water quality, chemical security, and environmental aspects of other major issue areas, such as energy, transportation, disaster relief and cleanup, and defense. This report provides an overview of key environmental issues receiving attention in the 109th Congress.

## **POLLUTANTS**

### **Taking Stock. 2003 North America Pollutants Releases and Transfers.**

Commission for Environmental Cooperation, July 2006

[http://www.cec.org/files/PDF/POLLUTANTS/TS03\\_en.pdf](http://www.cec.org/files/PDF/POLLUTANTS/TS03_en.pdf)

The annual Taking Stock report presents data that show total releases of industrial chemicals fell by 9 percent in North America from 2002 to 2003, and have decreased by 20 percent since 1998, the first year in which the report was generated. In 2003, nearly 3 million metric tons of chemicals were released into North American air, land or water from 23,816 facilities, according to the report. The report is based on data derived from the Canadian National Pollutant Release Inventory and the U.S. Toxics Release Inventory, as well as selected data from Mexico.